

AMENDMENTS TO THE SPECIFICATION

Please replace the paragraph beginning on page 7 line 1 with the following:

A2
Before describing the particular embodiment of CRC generator **106a/106b**, we refer first to **Figure 2**, illustrating input data 200, wherein the alignment or the lack thereof, for successive variable length series of data block groups, such as variable length series of data packets, is illustrated. As shown, each variable length series of data block groups may be received through m groups of data word groups, where m is an integer equal to or greater than 1. The group size of each data word group may be 1, 2, 3 ... or n bytes, where n is also an integer. In various embodiments, n equals 8. For these embodiments, n/2 equals 4.

Please replace the paragraph beginning on page 7 line 9 with the following:

A3
Referring back to **Fig. 23**, accordingly for the embodiments where n equals 8, CRC calculation assembly and accumulator pair **304** and **308a** is employed to incrementally calculate the CRC value for a series of data word groups, for an iteration, whenever the group size of the extracted data word group for the iteration is more than 4 data bytes (i.e. between 8 to 5 data bytes). Each of CRC calculation assembly and accumulator pairs **306a** and **308b**, and **306b** and **308c** is employed to incrementally calculate the CRC value for a series of data word groups, for an iteration, whenever the group size of the extracted data word group for the iteration is 4 data bytes or less (i.e. between 4 to 1 data bytes).

Please replace the paragraph beginning on page 7, line 20 with the following:

A4
Figure 4a illustrates CRC calculation assembly **304** of **Fig. 3** in further details, in accordance with one embodiment. As illustrated, CRC calculation assembly **304** includes four CRC calculators ~~**402-408**~~ **402, 404, 406, and 408**, and a multiplexor **410**, coupled to each other as shown. Each of CRC calculators ~~**402-408**~~ **402, 404, 406, and 408** is employed to handle the incremental calculation for an iteration for one of the group sizes. The bit distribution for an embodiment using a 64-bit data line is labelled above each CRC calculator ([63:0], [56:0], [48:0], [40:0]). More specifically, CRC calculator **402** is employed to handle the incremental calculation for an iteration for a data word group with a group size of 8 bytes, CRC calculator **404** is employed to handle the incremental calculation for an iteration for a data word group with a group size of 7 bytes, and so forth.

Please replace the paragraph beginning on page 8, line 3 with the following:

as
In other words, CRC calculation assembly **304** (for handling more than $n/2$ bytes calculations) has exactly $n/2$ CRC calculators. In each iteration, one of CRC calculators ~~402-408~~ **402, 404, 406, and 408** is selected for use (in accordance with the group size of the extracted data word group for the iteration).

Please replace the paragraph beginning on page 8, line 9 with the following:

ale
Figure 4b illustrates CRC calculation assembly **304** of Fig. 3 in further details, in accordance with another embodiment. As illustrated, CRC calculation assembly **304** includes input multiplexor **430**, three CRC calculators ~~422-426~~ **422, 424, and 426**, and multiplexors ~~432-434~~ **432 and 434**, coupled to each other as shown. The bit distribution for an embodiment using a 64-bit data line is labelled above the input multiplexor **430** ([64:0]). CRC calculators ~~422-426~~ **422, 424, and 426** are employed in combination at least some of the time to handle the incremental calculation for an iteration for one of the group sizes. More specifically, CRC calculator **422** is employed to handle the incremental calculation for an iteration for a data word group with a group size of 5 bytes, and CRC calculators **422** and **426** are employed in combination to handle the incremental calculation for an iteration for a data word group with a group size of 6 bytes. Similarly, CRC calculators **422** and **424** are employed to handle the incremental calculation for an iteration for a data word group with a group size of 7 bytes, and CRC calculators ~~402-406~~ **422, 424, and 426** are employed in combination to handle the incremental calculation for an iteration for a data word group with a group size of 8 bytes.

Please replace the paragraph beginning on page 8, line 23 with the following:

a7
In other words, CRC calculation assembly **304** (for handling more than $n/2$ bytes calculations) has less than $n/2$ CRC calculators. In each of the iterations, for some data group sizes, CRC calculators ~~422-428~~ **422, 424, and 426** are employed in combination.

Please replace the paragraph beginning on page 9, line 10 with the following:

a8
In other words, for the embodiment of Fig. 5a, CRC calculation assembly **306a/306b** (for handling $n/2$ bytes or less calculations) has exactly $n/2$ CRC calculators, as the embodiment of Fig. 4a for CRC calculation assembly **304**. In each iteration, one of CRC calculators ~~502-508~~ **502, 504, 506, and 508** is selected for use (in accordance with the group size of the extracted data word

ag group for the iteration). However, for the embodiment of **Fig. 5b**, CRC calculation assembly **306a/306b** (for handling $n/2$ bytes or less calculations) has less than $n/2$ CRC calculators, as the embodiment of **Fig. 4b** for CRC calculation assembly **304**. In each of the iteration, for some data group sizes, CRC calculators **522a**, **524b**, and **528 522b** are employed in combination. Furthermore, the embodiment of **Fig. 5b** includes multiplexors **530**, **532**, and **534** coupled to the CRC calculators **522a**, **524**, and **522b** and each other as shown.

Please replace the paragraph beginning on page 9, line 19 with the following:

ag Similar to Figs. 4a and 4b, the bit distribution for an embodiment using a 64-bit data line is labelled above each CRC calculator ([63:0], [56:0], [48:0], [40:0]) in **Fig. 5a**, and above the input multiplexor **530** ([64:0]) in **Fig. 5b**. Likewise, each CRC calculator, **502-508 502**, **504**, **506**, and **508** of **Fig. 5a**, and **522a-522b 522a**, **522b**, and **524** of **Fig. 5b**, may be constituted with any one of a number of known CRC calculation circuitry, e.g. polynomial division circuitry.

Please replace the paragraph beginning on page 10, line 10 with the following:

all For the illustrated embodiment, common/shared function units **608** include in particular a shared CRC generation function block, incorporated with the fast CRC generator of **Fig. 3**. Accordingly, the common/shared CRC generator may alternate between generating CRC values for different data packets of the different flows being processed by per flow inbound/outbound processing units **608 606/610**.